

**REMARKS/ARGUMENTS**

A telephone interview of the Examiner was conducted by the undersigned attorney on 13 December 2005. During the telephone interview, the references cited by the Examiner in the 13 October 2005 Office Action were addressed in light of the clarifying amendments proposed to the pending claims by the undersigned attorney.

An agreement was not reached during the telephone interview in view of the cited art of record. The Examiner did not agree that the proposed amendments to the claims clarified them in the manner intended by Applicant requiring further search and consideration.

In the Official Action, the Examiner rejected Claims 1 and 2 under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement. Specifically, the Examiner stated the terminology “ ‘A’ is a cationic substituent” failed to define what the substituent may be and therefore was not considered supported in the disclosure. In response to this rejection, the limitation has been removed from Claim 1 and therefore Claim 1 now complies with the written description requirement.

In the Official Action, the Examiner rejected Claim 1 under 35 U.S.C. § 102(b) as being anticipated by Ito et al. (6,090,732), for reasons of record. The Examiner made reference to examples 1 – 8 in Ito, et al. and stated that Claim 1 was considered anticipated.

Before discussing the prior art relied upon by the Examiner, it is believed beneficial to first briefly review the subject Patent Application, as defined in amended Independent Claim 1. One object of the present invention is that it provides a phosphate-based ceramic composition with a low dielectric constant and excellent sintering properties for use in electronic components. A portion of the phosphate-based ceramic composition is represented by the following formula;  $(1-x)(A'_{1-y}A''_y)O \cdot xP_2O_5$ , wherein A' and A'' are each independently Ca, Ba, Sr, Zn, Mg, Ni, Mn or Cu. As now more clearly recited, x, being defined in molar ratio, is greater than or equal to 1/5 but less than 2/5 and the phosphate-based ceramic composition has a dielectric constant of 13.2 or less.

In contradistinction, the Ito et al. reference does not disclose the full combination of features as now claimed in the subject Patent Application. For example, nowhere does the reference disclose or suggest a dielectric ceramic composition in which the dielectric constant is 13.2 or less. The composition of the subject Patent Application has excellent dielectric characteristics, as reflected by the low dielectric constant recited, which enhances its use in electronic components. Whereas, the ceramic material of Ito, et al, is used as surgical implant for hard-tissue of a living body. Producing a ceramic material with excellent dielectric characteristics so that the product can be incorporated into electric components is not contemplated by Ito, et al. The purpose of Ito, et al. is to provide a ceramic material which can be implanted into the human body. Such

a use, as detailed in the Ito, et al. reference, would not allow for modifications or characteristics in addition to those recited due to the hazards inherently associated with materials when used within the human body.

Therefore, the Ito, et al. reference does not direct itself to the elements of the subject Patent Application as defined by now amended independent Claim 1 and does not provide for the objects and the purposes of the subject inventive system. Further, as the reference fails to suggest the combination of elements now claimed, it cannot make obvious that claimed invention.

In the Official Action, the Examiner rejected Claims 1 and 2 under 35 U.S.C. § 102 as being anticipated by Lee (U.S. Patent 6,514,891). In the rejection, the Examiner specifically referred to Table 1 in the Lee '891 reference. Looking at Table 1 of the Lee '891 reference, it shows the composition of the  $P_2O_5$ -ZnO - BaO type main glass powder. The prescribed range of  $P_2O_5$  contemplated by Lee is between 40% - 60%, by weight percentage. Whereas, Applicant's preferred range for  $P_2O_5$ , as now more clearly recited in independent Claim 1, is less than  $2/5$  and greater than or equal to  $1/5$ . This equates to a weight percentage of  $P_2O_5$  that is below Lee's prescribed range lower limit of 40%.

Therefore, as the Lee '891 reference fails to disclose or suggest a weight percentage of  $P_2O_5$  of less than 40%, as is now defined in amended independent Claim 1, it cannot anticipate the invention as now claimed. Further, as the

reference fails to suggest the combination of elements now claimed, it cannot make obvious that claimed invention.

In the Official Action, the Examiner rejected Claims 1 and 2 under 35 U.S.C. § 102(b) as being anticipated by the Lee et al. reference (U.S. Patent No. 6,376,398). In the rejection, the Examiner specifically referred to Table 3 in the Lee et al. '398 reference. Looking at Table 3 of the Lee et al. '398 reference, it shows the composition of the glass  $P_2O_5$  -  $ZnO$  -  $BaO$  group. The preferred range of  $P_2O_5$  contemplated in the Lee et al. reference is between 45% – 65%, by weight percentage. Whereas, Applicant's preferred range for  $P_2O_5$  as now more clearly recited in Independent Claim 1, is less than 2/5 and greater than or equal to 1/5, in terms of molar ratio. This equates to a weight percentage of  $P_2O_5$  of less than 40% which is well below Lee, et al.'s prescribed range lower limit of 45%.

Therefore, as the Lee et al. '398 reference fails to disclose or suggest a weight percentage of  $P_2O_5$  of less than 40%, as is now defined in amended Independent Claim 1, it cannot anticipate the invention as now claimed. Further, as the reference fails to suggest the combination of elements now claimed, it cannot make obvious that claimed invention.

While it is believed that dependent Claim 2 adds further patentably distinct limitations, that claim is at least patentably distinct for the same reasons as independent Claim 1.

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It is now believed that the subject Patent Application has been placed in condition for allowance, and such action is respectfully requested.

Respectfully submitted,  
FOR ROSENBERG, KLEIN & LEE

The block contains two handwritten signatures. On the left is the signature of Rajiv S. Shah, which appears to be 'Rajiv S. Shah' in a cursive script. On the right is the signature of Jun Y. Lee, which appears to be 'Jun Y. Lee' in a cursive script.

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